

*Recipes, Menus,
Tables, Rules*

Battle
Creek
Diet
System

What to Eat in
DIABETES

The
Battle Creek
Food Company.
Battle Creek
Mich.

*Just What a Diabetic Needs
to Know About Foods
and Feeding*

DIABETIC LAXA

Bran made palatable and free from starch, specially adapted to diabetes. In crisp, toothsome biscuit.

DIABETIC AGAR

A specially purified agar, prepared in a form convenient for use.

RATION TABLES and DIET TABLES

by means of which the selection of a diet suitable for a diabetic becomes a pastime and a pleasure instead of an irksome task.

THE BATTLE CREEK FOOD CO.

BATTLE CREEK, MICHIGAN

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What Is Diabetes

Diabetes is a disease in which sugar appears constantly in the urine after an ordinary meal at which no sugar has been eaten.

Why Does Sugar Appear in the Urine?

The urine always contains a little sugar. This is natural because urine is derived from the blood, the kidneys acting as a sort of filter and there is always a little sugar in the blood.

The blood normally contains about $\frac{1}{10}$ of one per cent of sugar. This small amount is essential because sugar is the fuel of the body. The body uses the sugar to maintain heat, to support muscular work, to keep the heart beating and for many other very useful purposes.

How Does Diabetes Differ from a State of Health?

In health the blood and urine contain only very minute quantities of sugar because the sugar is burned or utilized as rapidly as it is taken up by the blood from the liver.

In diabetes the body has lost to a certain degree its ability to burn or utilize sugar. In consequence, the sugar of the blood is increased in amount and naturally the sugar of the urine increases also. The blood sugar may increase to two or three times the normal amount. The sugar of the urine increases to a much greater extent for the reason that the kidneys are constantly working to prevent the accumulation of sugar in the blood. This is highly important for the tissues will tolerate only a very small amount of sugar in the blood

and a large excess acts like a poison to the living cells. The kidneys may in a severe case of diabetes eliminate a pound or even more of sugar in 24 hours.

What is the Cause of Diabetes?

It is now generally believed that the most common cause of diabetes is a diseased condition of the pancreas, which in turn may be the result of chronic intestinal toxemia due to putrefaction in the colon, the result of chronic constipation. Persons who have diabetes have usually suffered for many years from constipation and have very foul stools. The excessive use of cane sugar is believed to be a cause of diabetes, also overeating in general and the free use of meats.

The Rational Treatment of Diabetes

The main object aimed at in the rational treatment of diabetes is to lessen the amount of sugar in the blood. When this is done the sugar of the urine diminishes and finally disappears. The reappearance of sugar in the urine indicates an increase of sugar in the blood.

How May the Sugar of the Blood Be Reduced?

1. It is evident that sugar in all forms must be carefully avoided. Not only sugar, but all sweet things, should be discarded. Most diabetics have a great fondness for sugar. In many cases the excessive use of sugar may be regarded as a con-

tributing cause of the disease, though probably not the primary one.

2. The amount of starch eaten must be restricted also. Bread, breakfast foods and potatoes are rich in starch and hence if eaten at all by diabetics must be taken in small quantities. The reason for this is that in the body the starch taken in the food is converted into sugar and so the taking of starch by a diabetic is almost equivalent to taking an equal amount of sugar.

3. The ability of the body to utilize sugar must be increased. This may now be accomplished by means of insulin, the fortunate discovery of which has already been the means of saving several hundreds of lives. Insulin does not obviate the necessity for special feeding in cases of diabetes, but provides a means by the use of which, in combination with regulation of the diet, such wonderful results are attainable that the life expectancy of the diabetic, which was formerly only three years, possibly may be made equal to that of the normal individual.

About Foods in General

In order to understand the principles of feeding a diabetic it is necessary to keep in mind the leading facts about the chemistry of foods.

Foods are complex substances consisting of combinations of various elements or principles, each of which is necessary to meet some bodily requirement and all of which are needed to support normal growth and development and to maintain the body in health and vigor.

Six Food Principles

A complete food, or at least a complete diet, must contain every one of the following elements:

1. **Protein**,—albuminous or nitrogenous substances such as the white of egg, the lean of meat and the glutinous portion of wheat obtained by washing a dough prepared from wheat flour until the starch has been removed.

2. **Carbohydrates**,—consisting of the various forms of sugars; cane sugar, malt sugar, milk sugar, fruit sugar and glucose; starch and fruit acids. Starch is found in all cereals and most vegetables, to a small extent in certain fruits, and to a smaller extent in green vegetables.

3. **Fats**,—chief of which are butter, lard, oleo-margarine, olive oil, cottonseed oil, peanut oil and other vegetable oils.

4. **Salts or Food Minerals**,—chief of which are lime, iron, phosphorus, potash and soda. Salts are usually associated in such a manner that if an abundance of lime and iron are secured the other needful elements will also be supplied in sufficient amount.

5. **Vitamins**,—these are of four sorts: (A) A vitamin which promotes growth—so-called fat soluble. Generally found in great abundance in milk, butter and other dairy products and in still greater abundance in the green parts of plants such as spinach and other greens; not found in cereals, meats, lard or vegetable oils. (B) A vitamin which is essential for maintenance, but which alone does not promote growth—a water-soluble vitamin, found in all natural foodstuffs but deficient in such prepared foods as polished rice, fine flour and

white bread; likely to be absent or deficient in dried and canned foods, also deficient in meats. (C) Anti-scorbutic vitamin which by its presence in foods prevents the development of scurvy; found in fresh fruits and vegetables of all sorts, particularly oranges, lemons, tomatoes, onions and greens.

A fourth vitamin (D), has recently been added to the list—the function of which is to prevent rickets by enabling the body to assimilate lime; found in butter, greens and in cod-liver oil.

6. **Roughage**,—the indigestible element of vegetable foods represented in the woody part of the bran of wheat and other grains, the fiber of vegetables and in agar-agar, prepared from sea-weed.

Uses of the Several Food Elements

Protein is required by the body in small amount for repairing the losses resulting from the wear and tear of the living cells and tissues of the body. The amount needed is quite small, probably not more than one-half or one-third the amount usually eaten, one-twelfth of the food intake estimated in calories or one-tenth of the weight of dry food eaten, the equivalent of a little less than two ounces of dry protein or two hundred calories. About half the protein eaten is in the body converted into sugar and used as other sugar eaten as such or formed from starch. The other half of the protein after being used is converted into urea and eliminated through the kidneys.

Carbohydrates—sugar, starch and vegetable acids—are burned in the body to support heat and muscular work. About twelve hundred calories or a little less than three-fourths of a pound in weight

of carbohydrates enter into the diet of the average person living a sedentary life. The average diabetic, however, cannot utilize more than half this amount and in many instances the amount of carbohydrates which a diabetic patient can utilize is very much less than one-half. It is not prudent, however, even for a diabetic to live a very great length of time on a diet containing less than two or three ounces of starch, or other carbohydrates, for the reason given in the next paragraph.

Fats, like carbohydrates, are burned in the body to support heat and energy. They are usually stored at first, serving the purpose of reserve or residual fuel to be burned later after the intake of carbohydrates has been in part consumed. Fats are not well utilized as fuel when eaten alone. A certain amount of carbohydrates, not less than two hundred calories or about two ounces must be eaten daily to insure the proper utilization of fats. In the absence of carbohydrates the fats are imperfectly burned and poisonous substances are left behind which give rise to acidosis.

Diabetics using a small amount of carbohydrates must naturally make larger use of fats. It is important to bear in mind that fats are highly concentrated foods equaling in food value a quantity of carbohydrates (starch and sugar) weighing two and one-fourth times as much. By careful management the diet of a diabetic may be made to include two or three times the ordinary amount of fat but an excess may do great harm.

Diabetics Need Lime and Iron

Diabetics need to give special attention to the lime and iron content of foods because of the large amount of salts lost in the great quantities of urine excreted. Fortunately these elements are found in great abundance in the greens which form so large a part of a rational diabetic diet.

Bran is also a valuable source of both lime and iron which diabetics may profitably utilize.

Vitamins Needed

It is of the greatest importance that diabetics should give thought to the vitamin content of their diet. A diet consisting very largely of meats and fats is necessarily very deficient in vitamins.

Vitamins are abundant in greens, and also in cottage cheese and other dairy products which, with the exception of milk, are usually well tolerated.

Many diabetics on the old diet of meat and fats unquestionably suffered great injury from a deficiency of vitamins. The free use of meat increases the tendency to coma. The substitution of vegetable protein for meat lessens the danger of coma and the elimination of sugar.

Diabetics Need to Encourage Frequent Bowel Movement

The importance of the element of bulk in the diet of diabetics can scarcely be overestimated. The almost universal constipation from which these patients suffer is unquestionably a very important factor in producing and maintaining the diseased condition of the pancreas which is the primary cause of the disease.

It is of the highest importance that the bowels should be made to act freely, preferably after each meal, and this requires a very bulky diet. Greens of all sorts and the coarse vegetables which are usually well tolerated furnish considerable cellulose but not a sufficient amount. Specially prepared bran or agar-agar must be added in liberal quantities and sometimes the bulk must be still further increased by the use of paraffin oil, which also acts as a lubricator.

Different Kinds of Protein

There are different kinds of protein. Among the most important discoveries relating to dietetics made in recent times is the fact that proteins differ greatly in their value as repair material.

Certain proteins are of such character that they furnish all the elements necessary for repairing the living cells and vital tissues of the body. These are known as **complete proteins**. There are other proteins which are lacking in certain necessary elements. These incomplete proteins are very common in vegetable foods. Animal products are naturally complete, because they are derived from what was once living tissue. Vegetable products are often incomplete individually, though in combination of two or more properly selected vegetables the proteins may serve to complement each other in such a way as to render the combination complete and able to supply all the needed elements. Certain vegetable proteins, however, furnish complete proteins. This is true of the proteins of nuts, including the peanut and the soy bean.

There is a difference also between animal proteins. Protein of milk and of the yolk of eggs is in every way as complete as that of meat, and besides, milk and egg proteins have the advantage over meat protein in that they have associated with them an abundance of lime and other salts and also the precious vitamins.

Meat an Inferior Food

Important food elements are either greatly deficient or altogether lacking in meats. The reason for this is that in animals these elements which are closely associated in growing parts of the vegetables are concentrated in certain parts of the body. The lime is in the animal found almost wholly in the bones; the iron almost exclusively in the blood, while the vitamins are concentrated in the liver and kidneys and in the marrow of the bones.

Meat Diet Undesirable in Diabetes

Formerly the food of diabetics consisted chiefly of meats and fats. On this diet the amount of sugar in the urine was usually reduced, but the patient suffered great injury from the excess of protein and of fats and in recent years it has been found that such a diet really hastens the progress of the disease and favors development of acidosis and diabetic coma, the most dangerous of all complications in diabetes. Such a diet also encourages both the constipation and the putrefaction in the colon through deficiency of bulk needed to promote intestinal activity.

It is to be recalled also that meat is lacking in vitamins, which are as essential to life as any other food constituent.

The large quantity of urine excreted, and the abnormal acids formed in diabetes leads to the abnormal loss of lime so that foods very rich in lime are needed. Meat contains almost no lime, because 99% of the lime of an animal's body is in its bones.

It is thus evident that in the use of a meat diet, both the lime and the precious vitamins are missed unless one eats both the bones and the liver and kidneys. Stefansson, the Arctic explorer, states that when living on a meat diet in the Polar country he found it necessary to eat raw seal's liver.

Advantages of Vegetable Proteins

1. Vegetable proteins are free from tissue wastes and putrefaction products. They are pure protein.

2. Vegetable proteins have associated with them a considerable quantity of the necessary food lime which is almost altogether lacking in meats, and are also rich in food iron.

3. Vegetable proteins are rich in vitamins which are markedly deficient in meats.

4. By proper combinations of vegetable proteins such as the gluten of wheat products with almonds, peanuts and other nuts and with the soy bean, or with eggs or cheese, particularly cottage cheese and "greens," all the elements necessary for rebuilding the tissues are provided and in a pure state not associated with harmful elements and

hence capable of being received and utilized by the body in larger quantities.

Numerous medical authorities have noted the fact that in cases in which the urine could not be made free from sugar with a meat diet the substitution of vegetable proteins for the meat may cause the sugar to disappear. The evidence is most conclusive that a meat diet contains certain elements which maintain the activity of the causes which produce diabetes; whereas, the contrary is true of vegetable proteins, or vegetable proteins combined with the proteins of eggs and milk.

Nuts Useful in Diabetes

A large variety of nuts and nut preparations is another source of proteins and fat. These foods are of very great value in the treatment of this disease, and are most satisfactory substitutes for flesh foods of various sorts.

They contain no starch, or at least, only an insignificant amount (the chief exception is the chestnut, which contains sixty per cent of starch, and hence cannot be recommended in this disease).

Nuts contain a large amount of easily digestible fats which diabetics need to replace the starch and sugar which they must avoid.

Nuts are rich in blood and tissue-building elements, being, in fact, the most highly concentrated natural food substance known. The absence of starch and the large proportion of albuminous elements combined with fats presented by this class of food substances give them properties practically identical with those of flesh foods, with

the exception of the entire absence of uric acid and other poisonous substances which abound in the tissues of animals. However, like all foods high in protein, their use must be somewhat limited and their energy value (calories) taken into consideration, as forming a part of the day's total ration.

The great difficulty in the use of nuts is their indigestibility when taken in the ordinary dry state. By very thorough mastication raw nuts may be safely eaten, but unfortunately very few people have the patience to use their teeth with sufficient thoroughness. Very long and patient chewing is required to prevent the entrance of hard, indigestible, and irritating particles into the stomach. We have overcome this difficulty by the preparation of a variety of nut products in which the hard, dry kernels are first deprived of their indigestible skin and then reduced to a fine paste or meal, in which states they are not only toothsome and wholesome, but are easily digested. Of these products, Protose, Nuttolene and Almond Butter, from which delicious nut milks and creams may be produced, are particularly valuable for diabetics.

Special Dangers of Constipation in Diabetes

Constipation is a very common and most harmful condition in diabetes. The putrefaction of food remnants is naturally much greater in diabetes than in other conditions because of the much larger amount of fats which enters into the dietary and the limited amount of starch and sugar.

The diabetic is thus of all persons most exposed to the evils of autointoxication, and is deprived of

Nature's most valuable means of combating this condition.

Besides the poisons formed by putrefaction of food remnants, there is the highly toxic bile, which Bouchard showed to be six times as poisonous as the urine. The liver pours into the intestine daily 20 ounces of this highly poisonous excretion. The intestinal mucous membrane also excretes highly poisonous substances. It is then clearly of the greatest importance in diabetes that the bowels should move with unusual frequency so as to carry off promptly the poisonous excretions of the liver and intestines and so prevent their reabsorption, and to give as little time as possible for the putrefaction of the foodstuffs in the colon.

Constipation is highly dangerous in diabetes because it encourages diabetic coma, the most dreaded complication of the disease. The bowels should certainly move three or four times a day.

Laxative drugs of all sorts are injurious. Modern medical discovery has however developed a few remedies which are not only efficient but are at the same time absolutely harmless. It is important that every diabetic should know about these useful food accessories (not drugs). The most important of these are Diabetic Bran, agar, paraffin preparations and psyllium seed. Wheat gluters and soy bean meal are useful because they help to change the intestinal flora.

RULES TO BE FOLLOWED BY DIABETICS

We quote the following rules from one of the most recent works on the treatment of diabetes:

1. Cultivate self-control. The pleasure of eating must be made altogether a secondary consideration. The diabetic must eat scientifically; he must "eat to live." Every meal must be carefully arranged with reference to health requirements.

2. The diet must be meager. Over-indulgence in eating is positively dangerous for a diabetic. Eat too little rather than too much.

3. A gain in flesh is not desirable except in cases of very decided emaciation. Persons who are obese must expect to lose in flesh and must reduce their weight to the normal standard.

4. The basis of the diet should always be bulky green vegetables. With the exception of the potato, the beet, and the carrot, green vegetables contain little sugar or starch. Vegetables are also low in protein and contain almost no fat. Their use in connection with foods rich in protein and fat in diabetes is most important. Greens should be freely used. They are most important. The appetite may be satisfied with bulk even though the actual amount of food as estimated in calories, may be comparatively small.

5. The diet should be sufficiently laxative to secure three bowel movements daily. Diabetic Bran or Diabetic Laxa and Para-lax, should be taken in connection with every meal.

6. Generally every morsel should be thoroughly chewed. To this end it is well to take the food

in as dry a form as possible. This is especially true of cereals. If bread is eaten it should be in the form of hard, dry gluten bread or toast. In cases of hyperacidity the food should be chewed less.

7. Cane sugar, honey and all other sweets must be strictly avoided.

8. Breakfast foods, bread and potatoes must be eaten very sparingly and in weighed quantities so that the effect upon the sugar elimination may be accurately known.

9. Flesh meats of all kinds should be excluded from the bill of fare.

10. Eggs may be used sparingly. The yolks of eggs are better than the whites.

11. In some cases buttermilk may be taken in moderation without injury. As a rule, however, cream should be used in preference to milk as it contains less sugar.

12. Ordinary dairy butter is objectionable on account of the considerable amount of butyric acid which it usually contains. This may be in large part removed by thorough washing. Sterilized butter is preferable.

13. Some fresh uncooked foods, such as lettuce, celery or cabbage, should be eaten at every meal. It is well to make large use of these green stuffs. Uncooked foods contain a large store of vitamins which are essential to health. Grapefruit and sour apples may be used for the same purpose in moderate amount.

14. Avoid the use of saccharine and drugs of all sorts. Saccharine is a poison and produces ill

effects if taken in other than most minute quantities. There is reason to believe that even small quantities used during a considerable length of time produce injury. The appetite for sweets should be suppressed. It is possible for one who is fond of sweets to acquire by training an actual dislike for them and a liking for many delicate flavors he has never noted before, because they were hidden by sweets.

15. Whenever sugar appears in the urine an immediate change in diet must be made. Usually either less carbohydrate or more insulin is needed.

16. Tea and coffee must be avoided; also alcoholic liquors as well as the use of tobacco and all other narcotics. Avoid mustard, pepper, vinegar and other condiments. Use salt very sparingly.

17. Water should be taken in sufficient quantity to satisfy thirst. One glassful may be taken at meal time without injury. A glassful should be taken on arising in the morning, on going to bed at night, and whenever the bladder is evacuated.

18. All foods should be carefully weighed or measured and the amount for each day recorded.

19. The amount of food (calories) found to be suited to a case must be carefully adhered to or increased gradually under expert advice.

20. The urine should be tested for sugar every week, and if sugar is found present, a twenty-four hour specimen should be collected and sent to a chemist for examination.

An examination of the blood should be made every few months to determine the condition of the blood sugar.

FOODS SUITABLE FOR DIABETICS

Vegetables

Tomatoes	Brussels Sprouts
Jerusalem Artichoke	Onions
Cauliflower	Asparagus
Turnips	String Beans
Celery	Mushrooms
Cabbage	Kale
Lettuce	Cabbage Greens
Romaine	Turnip Tops
Water Cress	Spinach
Radishes	Dandelion
Cucumbers	Dock
Eggplant	Lamb's Quarters
Potatoes	Broccoli
(sparingly)	Red Root
Okra	Purslane
Greens	Quinoa
Endive	Mustard

Fruits

Grapefruit	Sour Cherries
Lemons	Pineapple
Currants	Plums
Huckleberries	Peaches
(or Blueberries)	Apricots
Strawberries	Sour Apples
	Sour Oranges

Nuts

Walnuts	Peanuts
Butternuts	Almonds
Brazil-nuts	Pecans
Coconut	Filberts

Fats

Dairy Butter	Thick Cream
Ripe Olives	Salad Oils

Beverages

Yogurt Buttermilk	Buttermilk
Koumyss	Clabbered Milk
Cereal Coffee (made without sugar)	

Breadstuffs

Gluten Breads	Soy Bean Flour
Gluten Meals	Gluten Flours

Foods to be Avoided

Diabetic patients should avoid starchy cereals, also dry beans and peas, beets, turnips, parsnips as well as figs, dates, prunes and fruits canned with sugar.

Ordinary breads are not safe and none except those made from gluten or diabetic flours should be used.

How Much to Eat

The total number of food units should rarely be over 3,200 calories daily, and not less than 1,600 calories for the adult, and should be adjusted to individual needs. As diabetic patients can make use of only a limited amount of carbohydrate foods these must be limited to from 400 to 800 calories daily, and proteins and fats increased proportionately. These recipes are prepared, using foods with as little carbohydrates as possible.

SPECIAL DIABETIC FOODS

Gluten Flour

Our 40% Gluten Flour is exactly what it is represented to be. It contains 40 per cent or more of the very finest wheat gluten, and can be used in making bread of various sorts. Good bread and gems are made of our 40% Gluten Flour.

Casein Gluten Flour

Vitamized. The superior quality of casein as a tissue builder makes it a valuable resource in diabetes. By its addition to wheat gluten, the value of the latter is greatly enhanced and the work of the liver and kidneys lightened. This perfected nitrogenous food is especially useful in connection with Insulin.

Forty Per Cent Gluten Meal

Prepared from choice wheat, guaranteed to contain 40 per cent of gluten thoroughly cooked ready for immediate use by the addition of water or any other liquid. Generally used in the form of gruel with the addition of cream or butter. May also be combined with buttermilk, or eaten as a porridge, or in the form of mush with the addition of a little cream or butter.

Forty Per Cent Gluten Biscuit

Guaranteed to contain 40 per cent of gluten. These biscuits are light and bulky. Each 40% gluten biscuit represents 7 calories of protein in the form of gluten, and 8 calories of carbohydrates.

Pure Gluten Biscuit

As pure as can be made. Contains 70 per cent to 80 per cent of pure gluten of the finest quality.

Each lot made is carefully analyzed and we seldom find it contains as much as 5 per cent of starch.

Pure Gluten Meal

As pure as can be made. Guaranteed to contain on an average not more than 5 per cent of starch.

Almond Butter

From this product may be prepared a most delicious vegetable milk or cream of special service to those who are sensitized against milk or who are unable to use milk on account of the large amount of sugar which it contains.

Nuttolene

A pure nut product having the consistency of cream cheese, a meaty flavor and composition. Is excellent for the preparation of stews, sandwiches and cutlets.

Protose

A product closely resembling potted meats,—looks, smells, and tastes like meat, even has a slight suggestion of the fiber of meat. Prepared from wheat gluten and nuts which provide a complete protein.

This substitute for meat was prepared by us some years ago in response to the request of the

Assistant Secretary of the U. S. Department of Agriculture, Professor Chas. W. Dabney, a distinguished chemist and late President of Cincinnati University. This unique product has borne the test of use by tens of thousands of people in all parts of the world during more than twenty years. Protose much resembles meat but is greatly superior to flesh meats as a food for diabetics because of its freedom from germs and germ products, its richness in vitamin (B), and especially because it does not increase the blood sugar as does meat, and helps to change the intestinal flora. Doctor Dabney says of Protose:

"I have used Protose and found it palatable and entirely satisfactory. I have found it a perfect substitute for meat. . . . I believe the craving of meat is an artificial one, like the taste for alcoholics, resulting from the education of the taste to like its peculiar flavors, and of the nerves to enjoy its slight stimulation. Besides furnishing proteins, fats, carbohydrates, lime, etc., in a better form and free from bacteria and urea and uric acid, Protose is doing a noble work as a satisfactory substitute for meat in teaching people how to form better dietaries. Protose will, I believe, be recognized in time as perhaps the greatest practical contribution you have made to the science of nutrition, in which you have been for a quarter of a century or more, our leading investigator and teacher."

Savita

Is a concentrated extract of yeast. It is the vegetable analogue of beef extract in both appear-

ance and flavor. It is absolutely wholesome and open to none of the objections which make it necessary to discourage the use of animal extracts and broths by diabetics. Broths and sauces prepared from Savita have a delicious aroma and flavor. The Battle Creek Sanitarium, the famous Park Grove Inn of Asheville, North Carolina, the finest resort hotel in the world, and the well-known Childs Restaurants, and many other hotels, hostleries and restaurants, make exclusive use of these products in the flavoring of soups, vegetables and broths, and it is rapidly displacing the stock pot wherever it has been introduced.

Savita may be used in a great variety of ways. It lends itself especially to the making of broths, soups, gravies, sauces, and bouillons. A number of recipes for the use of Savita in cases of diabetes will be found in this booklet.

Soy Bean Biscuit

One of the latest additions to our diabetic foods is a crisp, tasty, palatable biscuit made from the Soy Bean, known for its valuable protein. A very interesting fact about the protein of Soy Bean is that it is a complete protein and is just as valuable as a food as the protein of milk.

FOOD ACCESSORIES FOR DIABETICS

Diabetic Bran

Every farmer knows about the laxative properties of bran. He feeds it to his cattle, but neglects to eat it himself. Ordinary bran contains dirt and germs. Diabetic bran is an efficient and most use-

ful laxative. Ordinary bran contains so large an amount of starch which cannot be removed by washing that specially prepared bran is necessary for diabetics.

Diabetic Bran, free from starch, is prepared by us by an original method devised in our laboratories. Bran is better than cellulose and other purely non-nutritious substances, for the reason that it not only supplies the finest kind of roughage but it is also a rich source of food iron, food lime and vitamins—food essentials which all diabetics need.

Para-Lax

Para-lax is an emulsion of refined petroleum products. Its action is purely mechanical. It lubricates the intestine and so prevents stasis or clogging.

Para-lax is not an irritant, like laxative drugs, but an emollient. It protects sore surfaces and thus promotes healing. It dissolves and removes the poisonous products of putrefaction and trains the bowel to natural action.

Used with Diabetic Bran, Agar or Diabetic Laxa, Para-lax is almost a panacea for constipation.

Diabetic Laxa

A combination of Diabetic Bran with agar. A most efficient form of roughage. Produced in cakes of the right size for an efficient dose. Much superior to agar alone and much more convenient for use than bran.

Psylla

Psyllium Seed (*Plantago psyllium*) is most valuable as an aid to bowel action. Psylla owes its properties to its extraordinary richness in a peculiar mucilaginous substance which the small brown seeds give out when immersed in water. This substance takes up water in enormous quantities and forms a limpid, coherent, gelatinous mass many times the volume of the original material.

This quality gives to Psylla a most precious value as an intestinal stimulant, or rather as an aid to crippled and inefficient colons.

Purified Agar for Diabetics

Commercial agar is an Oriental product which has undergone much exposure and handling and is quite unfit to enter the stomach in the necessary quantities without thorough cleansing and sterilizing. Colax is agar which has been subjected to a special cleansing process which also removes the unpleasant flavor of the commercial product. This purified product is prepared in neatly wrapped packets, of proper size for one meal.

Canned Foods without Salt or Sugar

The following canned fruits and vegetables are especially adapted to the use of diabetics, being put up without the addition of salt or cane sugar:

Apple Sauce	Strawberries
Blackberries	Figs
Cherries, Pitted Red	Grapefruit
Sour	Apricot
Cherries, Whole White	Pineapple
Peaches, Yellow Halves	Beans, Cut Golden Wax
Pears, Bartlett	Beans, Refugee, 2 sieve
Raspberries, Black	Peas, June, 3 sieve
Raspberries, Red Columbian	Spinach, Garden
	Tomatoes

FOOD TABLE

GIVING FOOD VALUES IN CALORIES

A. P.—As purchased

E. P.—Edible portion

	Calories per gram			
	Protein	Fat	Carbo- hydrates	Total
Agar	0.00	0.00	0.00	0.00
Almonds, E. P.	.84	4.94	.69	6.47
Almond Butter	.84	4.94	.69	6.47
Apples, E. P. (raw)	.02	.04	.57	.63
A. P.	.01	.03	.43	.47
Apricots, E. P. (fresh)	.04	.00	.54	.58
A. P. "	.04	.00	.50	.54
Asparagus	.07	.02	.13	.22
Cooked	.08	.30	.09	.47
Avocado (Alligator Pear), E. P.	.08	1.81	.30	2.19
Beans, String (fresh), E. P..	.09	.03	.30	.42
Cooked	.03	.10	.08	.21
Canned, A. P.	.04	.01	.15	.20
Wax, Canned, A. P.	.04	.01	.12	.17
Biscuit, Gluten, 40%	1.68	.11	1.91	3.70
80%	3.18	.09	.44	3.71
Blueberries, (fresh)	.02	.05	.66	.73
Bran	.14	.08	.47	.69
Bran, Sterilized	.23	.12	.52	.87
Bran, Diabetic	.23	.12	.05	.40
Bread, Gluten	.02	.00	.28	.30
Brussels Sprouts, Canned ..	.06	.01	.14	.21
Butter	.04	7.70	.00	7.74
Buttermilk	.12	.05	.19	.36
Cabbage, (raw) E. P.	.06	.03	.22	.31
Cauliflower, (raw) A. P. ...	.07	.05	.19	.31
Celery, (raw) E. P.	.04	.01	.13	.18
Colax, Diabetic	0.00	0.00	0.00	0.00
Cream	.10	1.67	.18	1.95
Cucumber, E. P.	.03	.02	.12	.17
Currants, A. P. (fresh)	.06	.00	.51	.57
Dandelion Greens	.10	.09	.42	.61
Diabetic Bran	0.00	0.00	0.00	0.00
Eggs (raw) A. P.	.48	.84	.00	1.32
E. P.	.54	.95	.00	1.49
Poached	.53	1.08	.00	1.61
Yolks (boiled)	.63	3.00	.00	3.63
Endive	.04	.01	.12	.17
Gluten Biscuit, 40%	1.68	.11	1.91	3.70
80%	3.18	.09	.44	3.71
Gluten Flour, Casein	1.87	.02	1.70	3.59
Meal, 40%	1.70	.02	1.70	3.41
80%	3.00	.07	.10	3.17
Kaffir Tea	0.00	0.00	0.00	0.00
Laxa, Diabetic	0.00	0.00	0.00	0.00

FOOD TABLE

	Calories per gram			
	Protein	Fat	Carbo- hydrates	Total
Lettuce, E. P.	.05	.03	.12	.20
Minute Brew	0.00	0.00	0.00	0.00
Mushrooms, A. P.	.14	.04	.27	.45
Nuts				
Almonds, E. P.	.84	4.94	.69	6.47
Beech, E. P.	.88	5.17	.53	6.58
Butter, E. P.	1.12	5.51	.14	6.77
Brazil, E. P.	.68	5.97	.28	6.93
Filberts, E. P.	.62	5.88	.52	7.02
Hickory, E. P.	.62	6.07	.46	7.15
Pecans, E. P.	.38	6.35	.61	7.34
Pine, E. P.	1.36	4.45	.28	6.09
Walnuts, English, E. P. ..	.66	5.71	.64	7.01
Nuttolene	.58	2.27	.24	3.09
Okra, E. P.	.06	.02	.30	.38
Olives, Ripe, A. P.	.06	1.89	.14	2.09
E. P.	.07	2.35	.17	2.59
Onions, E. P.	.06	.03	.40	.49
Cooked	.05	.16	.20	.41
Oranges, E. P.	.03	.02	.46	.51
A. P.	.02	.01	.34	.37
Juice	0.00	0.00	.53	.53
Para-lax	0.00	0.00	0.00	0.00
Peaches, E. P.	.03	.01	.38	.42
A. P.	.02	.01	.31	.34
Pineapple (fresh), E. P. ...	.02	.03	.39	.44
Protose	.90	.86	.36	2.12
Psylla	0.00	0.00	0.00	0.00
Radishes, E. P.	.05	.01	.23	.29
Savita	.85	.04	.24	1.09
Soy Biscuit	2.15	.83	.05	3.03
Soy Meal				
Spinach (fresh), A. P.	.08	.03	.13	.24
(cooked) A. P. ...	.08	.37	.10	.55
Strawberries	.00	.05	.30	.35
Swiss Chard	.13	.05	.20	.38
Tomatoes (fresh)	.04	.04	.16	.24
(canned)	.05	.02	.16	.23
Turnips, E. P.	.05	.02	.32	.39

SOUPS *

Tomato Broth

108 grams (4 oz.) tomato, condensed	306 grams (11 oz.) water
4 grams (1½ tps.) onion (grated and fresh)	4 grams (1 tps.) savita
	½ bay leaf

Cook all ingredients for 20 minutes and strain.
This amount serves 4 orders:

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	0	0	1	4

Asparagus Broth

132 grams (4½ oz.) aspar- agus purée	5 grams (1½ tps.) savita
	405 grams (14 oz.) water

Mix all ingredients, heat and serve. Serves about
4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	0	0	1	4

Cabbage Broth

125 grams (4½ oz.) cabbage purée	345 grams (12 oz.) water
	2 grams (½ tps.) savita

Cut cabbage fine and cook in the boiling water fifteen
minutes. When tender force the cabbage through a col-
ander and season liquid with salt and savita. This amount
serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	0	0	1	4

Celery Broth

177 grams (6 oz.) celery purée	345 grams (12 oz.) water
	4 grams (1 tps.) savita

Steam celery, run through colander and mix together.
This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	0	0	1	4

* These recipes are taken from "The New Method in
Diabetes." By Dr. John Harvey Kellogg. Published
by The Modern Medicine Publishing Company, Battle
Creek, Michigan.

Okra Broth

119 grams (4 oz.) canned okra purée 230 grams (8 oz.) water
7 grams (1 tps.) savita

Rub okra through a colander. Heat the purée with the water and salt. This amount serves about 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100				
(3½ oz.)	1	0	2	12

String Bean Broth

193 grams (6½ oz.) string bean purée 368 grams (13 oz.) water
1 gram (¼ tps.) savita

Mix ingredients. Heat and serve. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100				
(3½ oz.)	1	0	3	16

Cream of Almond Soup

30 grams (1 oz.) almond butter 307 grams (11 oz.) water
152 grams (5 oz.) cream, 40% 5 grams (1 tps.) savita

Place almond butter in a double boiler. On to this gradually pour cream and water which have been heated. Add seasoning. Mix well and serve hot. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100				
(3½ oz.)	2	16	2	160

Cream of Browned Onion Soup

94 grams (3 oz.) onion-purée fresh 3 grams (1½ tps.) gluten flour
196 grams (6 oz.) cream, 40% 196 grams (6 oz.) water
6 grams (1½ tps.) savita

Cook the onions until tender and until nearly all the liquid is cooked out. Rub through a colander and to the purée add the cream and water, having saved out enough of the liquid to moisten the flour. Thicken the soup, add savita and salt and serve hot. The amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100				
(3½ oz.)	1	16	3	160

Saniterrapin Soup

20 grams (2/3 oz.) protose 12 grams egg yolks (1 yolk)
8 grams (1/2 tbs.) butter 420 grams (14 oz.) water
2 grams (1/2 tps.) savita

Simmer protose in the water one-half hour; add the savita, salt and strain. Beat egg and pour hot liquid over it, beating meanwhile. Add butter just before serving. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	1	3	0	31

Protose Broth

45 grams (1½ oz.) protose	4 grams (1 tps.) onion
purée	juice
4 grams (1 tps.) tomato,	1 small bay leaf
strained	368 grams (13 oz.) water
1 gram (¼ tps.) butter	6 grams (1½ tps.) savita

Cook protose, onion and bay leaf slowly for one hour and add other ingredients. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	2	1	1	21

Savita Broth

20 grams (4 tps.) savita 460 grams (13 oz.) water

Heat water. Add the savita extract and bring to boiling point. This amount serves 4 orders.

Grams for serving 100	Protein	Fats	Carbohydrate	Calories
				No food value.

ENTRÉES and VEGETABLES

Asparagus Loaf

7 grams ($\frac{1}{4}$ oz.) gluten crumbs, 80%	115 grams (4 oz.) cream, 40%
234 grams (8 oz.) asparagus, canned	46 grams egg (1 egg)
	6 grams ($\frac{1}{2}$ tbs.) butter
2 grams ($\frac{1}{2}$ tps.) salt	

Crumb the biscuit and mix with the hot cream and butter. Add the beaten egg and lastly fold in the asparagus which has been cut in $\frac{1}{2}$ inch lengths. Add the salt and turn into a buttered pan. Bake in a moderate oven until set. This amount serves 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	3	12	2	128

Celery and Cheese

50 grams (2 oz.) celery, steamed and diced	20 grams (1½ tbs.) yogurt cheese
3 grams (⅛ oz.) gluten crumbs, 80%	38 grams (1½ tbs.) cream, 40%

Dice celery and steam until tender. Arrange in a buttered baking dish with a layer of cheese and salt, making two layers of each. Add cream and spread gluten biscuit crumbs on top. Bake in a moderate oven until brown. Individual serving.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 113 (4 oz.)	7	23	4	251

Cheese Timbales

230 grams eggs (5 eggs)	192 grams (6½ oz.) cream, 40%
36 grams (1½ tbs.) cottage cheese	191 grams (6½ oz.) water
3 grams (½ tps.) salt	

Beat the eggs until well blended. Purée the cheese and mix with the cream and water. Combine the two mixtures, add salt and pour into ramekins. Set the dishes in a pan of hot water and bake in a slow oven until firm. This amount serves 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 100 (3½ oz.)	7	16	1	194

Protose in Tomato

227 grams (8 oz.) protose	14 grams (½ oz.) butter
227 grams (8 oz.) strained tomato	14 grams (½ oz.) grated onion
56 grams (2 oz.) water	

Cut the protose into half-inch slices and arrange in a baking dish. Pour the tomato and water over the protose, add the butter. Cover the dish and bake slowly for one hour. Salt to taste.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 60 (2 oz.)	7	4	4	80

Nuttolene in Tomato

227 grams (8 oz.) nuttolene	454 grams (16 oz.) strained tomatoes
14 grams (½ oz.) butter	

Cut the nuttolene into half-inch cubes or in slices and place in a pan with the strained tomato and butter.

Simmer slowly for about a half-hour or until the tomato begins to thicken.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 60				
(2 oz.)	3.3	6	2.7	78
Calories per oz. ...	6.4	26	5	

Browned Nuttolene

60 grams (2 oz.) nuttolene 5 grams (1 tps.) butter

Cut the nuttolene into two slices and place on a buttered pan. Brown in the oven or over an open fire.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 60				
(2 oz.)	8	18	3	206

Tomato Omelet

46 grams eggs (1 egg) 12 grams (scant tbs.) tomato
4 grams (1 tps.) butter 1 pinch of salt
8 grams ($\frac{1}{2}$ tbs.) hot water

Beat eggs, add cream and salt and pour into smoking hot omelet pan. Cook, turn and before folding place tomato in center. Serve on hot platter. Individual serving.

Grams for serving 70

	Protein	Fats	Carbo- hydrate	Calories
(2½ oz.)	6	8	0	96

Scalloped Eggs

138 grams eggs (3 eggs) 10 grams (2 tps.) gluten
12 grams ($\frac{1}{2}$ oz.) gluten flour
crumbs 20 grams (1½ tbs.) chopped
230 grams (8 oz.) 40% olives
cream Salt

Cover the bottom of a buttered baking dish with crumbs, then a layer of egg (hard-cooked); then a layer of chopped olives. Add a little salt—repeat until dish is full. Place crumbs and some cream on top. Place dish in a pan of hot water and bake 15 or 20 min. This amount serves 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	8	23	3	251

Baked Okra

235 grams (8 oz.) okra, cut 115 grams (4 oz.) cream,
(canned) 40%
23 grams egg ($\frac{1}{2}$ egg) 12 grams ($\frac{1}{2}$ tbs.)
25 grams (1 oz.) gluten butter
crumbs, 80% 1 gram ($\frac{1}{4}$ tps.) salt

Put okra in pan and add the beaten egg, cream and buttered crumbs and bake in an oiled pan in a moderate oven until set. This amount serves 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	4	12	7	152

Spinach Loaf

146 grams (5 oz.) spinach (cooked and drained)	9 grams (2 tps.), onions, fresh and grated
158 grams (5½ oz.) tomatoes canned and drained	6 grams (1½ tps.) butter
145 grams (5 oz.) cottage cheese, dry	12 grams (1 tbs.) savita 57 grams (2 oz.) eggs

All vegetables should be well drained. Have cheese as dry as possible. Grate the onion. Dissolve savita in a very small amount of tomato juice. Mix all thoroughly. Bake 2½ hours. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	7	2	3	58

Scalloped Vegetable Oysters

284 grams (10 oz.) vegetable oysters (diced and steamed)	
28 grams (1 oz.) gluten sticks, 80%	
162 grams (5½ oz.) cream, 40%	

In buttered pan place ½ of the vegetable oysters, then ½ of the crumbs, then another layer of the oysters and crumbs. Over all pour the cream. This amount serves 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	7	12	5	156

Baked Cabbage

255 grams (9 oz.) cabbage, raw and chopped	46 grams eggs (1 egg) 4 grams (1 tps.) salt
115 grams (4 oz.) cream, 40%	

Prepare and chop cabbage. Steam until wilted. Drain and cool slightly. Add the well beaten eggs to the cream. Mix with the cabbage and turn into a buttered baking dish. Bake until browned in a moderate oven. (If boiled in water until tender, then baked, it becomes red). This amount serves 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	3	10	4	118

Escalloped Celery

190 grams (7 oz.) celery, diced	115 grams (4 oz.) cream, 40%
54 grams (2 oz.) ripe olives, chopped	12 grams (1 scant tbs.) butter
31 grams (1 oz.) gluten crumbs, 80%	1 gram ($\frac{1}{4}$ tps.) salt

Crumb 80% gluten sticks finely. Sprinkle a layer of crumbs on the bottom of buttered baking dish, then a layer of celery and a few pieces of the olives and a little salt. Repeat until all the ingredients have been used. On the top sprinkle crumbs and dot with bits of butter. Add the cream and place dish in a pan of hot water and bake 15 or 20 minutes in a moderate oven. This amount serves 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	6	15	4	175

Vegetable Hash

56 grams (2 oz.) onions, raw
56 grams (2 oz.) turnips, raw
56 grams (2 oz.) carrots, raw
80 grams (3 oz.) cabbage, chopped
96 grams ($3\frac{1}{2}$ oz.) celery, diced
40 grams ($1\frac{1}{2}$ oz.) mushrooms, canned
6 grams ($1\frac{1}{2}$ tps.) savita
2 grams ($\frac{1}{2}$ tps.) salt

Steam turnips, carrots and onions together. Steam celery until tender. Steam cabbage until tender. Boil mushrooms 20 minutes. Mix all together; add butter, salt and savita. Put over fire to reheat. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	1	0	6	28

BREADS

Gluten Bran Bread

184 grams eggs (4 eggs)	130 grams ($4\frac{1}{2}$ oz.) gluten flour
280 grams (10 oz.) yogurt buttermilk	4 grams (1 tps.) butter
148 grams (5 oz.) almonds	1 gram soda (1 tps.)
60 grams (2 oz.) bran	2 grams salt ($\frac{1}{2}$ tps.)

Beat the eggs, add the yogurt buttermilk, nuts, flour, bran, soda, salt and butter. Mix and bake in a loaf in a moderate oven forty minutes. This amount makes 1 loaf.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 28 (1 oz.)	4	4	3	64

Gluten Griddle Cakes

46 grams egg (1 egg)	65 grams (2¼ oz.) gluten
230 grams (8 oz.) yogurt	flour, 40%
buttermilk	½ gram salt
3 grams soda (¾ tsp.)	

Beat the eggs, add the buttermilk, salt and flour sifted with the soda. Bake on a soapstone griddle, so that no fat will be used. This amount serves about six orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 70 (2½ oz.)	9	3	8	95

Gluten Bran Bread Sandwich

28 grams (1 oz.) gluten	7 grams (1½ tps.) butter
bran bread	7 grams (1½ tps.) lettuce

Cut the gluten bread into two thin slices, each weighing 14 grams. Spread with butter and arrange the crisp lettuce leaves on one slice. Fit slices of bread together, cutting into any desired shape. Individual recipe.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 42 (1½ oz.)	4	10	4	122

CEREALS

Cream of Gluten Gruel

74 grams (2½ oz.) gluten flour, 40%
575 grams (20 oz.) cream, 40%

Mix the flour with a little of the cold cream. Heat the remainder of the cream and add the flour slowly. Cook thoroughly in a double boiler, stirring constantly for fifteen minutes. Season with salt and serve. This amount serves about 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	5	31	6	323

Scotch Bran Brose

40 grams (1½ oz.) rolled	287 grams (10 oz.) water
oats	1 gram (¼ tps.) salt
15 grams (1½ oz.) diabetic	
bran	

Heat the water to boiling. Add the salt, bran and oats. Let boil 10 minutes and serve. This amount serves about 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	2	1	7	45

SALADS

Cabbage Salad

85 grams (3 oz.) cream, 40%	22 grams (1½ tps.) lemon juice
200 grams (7 oz.) cab- bage	1 gram (¼ tps.) salt ½ gram celery salt

Cut small tender cabbage quite fine. Beat the cream with egg beater until smooth. Gradually add lemon juice then seasoning. Beat thoroughly and mix with the cabbage. Serve on lettuce leaf. This amount serves 3 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	1	10	4	110

Celery Relish

30 grams (1 oz.) yogurt cheese
9 grams (⅓ oz.) egg yolks (hard-boiled)
9 grams (⅓ oz.) sweet peppers (chopped) for tomato jelly:
184 grams (6 oz.) tomato, canned, strained
11 grams (2½ oz.) onion juice
6 grams (½ tbs.) tomato pulp (fresh)
10 grams (⅓ oz.) celery stalks
9 grams (2 tps.) lemon juice
92 grams (3¼ oz.) water
1 gram vegetable gelatine

Divide the yogurt cheese in three dishes; in the first mix the egg yolks, in the second, the tomato pulp, and in the third, the three green peppers. Fill ⅓ of the celery stalks with the green mixture, ⅓ with the red, ⅓ with the yellow. Slice the celery crosswise, putting equal number of slices of each color in the molds (previously wet with cold water.) Fill molds with tomato jelly and put in a cold place until set. Serve on lettuce leaf with mayonnaise as ordered. Use general directions for tomato jelly. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	2	3	3	47

Cucumber Jelly

- 280 grams (10 oz.) cucumber pulp
- 7 grams ($\frac{1}{4}$ oz.) vegetable gelatine
- 70 grams ($2\frac{1}{2}$ oz.) lemon juice
- 230 grams (8 oz.) water
- A few drops onion juice
- 2 grams ($\frac{1}{2}$ tps.) salt

To prepare the cucumber pulp peel the cucumber and grate. Strain through a colander, pressing through as much liquid as possible. Add lemon and onion juice and salt. Soak the vegetable gelatine in the boiling water. Let cook five to ten minutes. Strain and add to the juices. Turn into moulds wet with cold water and let stand until firm. Serve on a lettuce leaf without dressing. This amount serves 5 orders.

Grams for serving—	Carbo-			
	Protein	Fats	hydrate	Calories
without mayonnaise				
85 (3 oz.)	0	0	2	8
with mayonnaise				
113 (4 oz.)	1	22	3	214

Diabetic Perfection Salad

- 15 grams ($\frac{1}{2}$ oz.) pimento
- 2 grams vegetable gelatine
- 30 grams (1 oz.) celery, chopped
- 10 grams ($\frac{1}{3}$ oz.) lemon juice
- 13 grams ($\frac{1}{2}$ oz.) nuts, diced
- 252 grams (9 oz.) water, boiling
- 1 gram ($\frac{1}{4}$ tps.) salt
- 13 grams ($\frac{1}{2}$ oz.) nuts, chopped (pecans)

To the pimento, celery and nuts add the lemon juice and salt. Soak the gelatine in the cold water, wash thoroughly and add to the boiling water and cook until transparent. Strain and when partially cool, add the other ingredients with a few drops of vegetable coloring to make a pretty red. Mix well. Turn into wet molds and when set serve in a bed of lettuce. Serve with mayonnaise as ordered. This amount serves 3 orders.

Grams for serving—	Carbo-			
	Protein	Fats	hydrate	Calories
without mayonnaise				
100 ($3\frac{1}{2}$ oz.)	0	1	1	13

Mixed Vegetable and Egg Salad

- 104 grams ($3\frac{3}{8}$ oz.) cooked string beans
- 96 grams ($3\frac{1}{2}$ oz.) shredded cucumber
- 40 grams ($1\frac{1}{2}$ oz.) sliced radishes
- 32 grams (1 oz.) French dressing
- 109 grams (4 oz.) eggs (hard-boiled)
- 1 gram ($\frac{1}{4}$ tps.) salt

Mix together beans, cucumber and sliced radishes and let marinate in French dressing in a cool place for 30 minutes. Add salt. Cut hard-boiled eggs into eighths lengthwise. Serve vegetable mixture on lettuce leaves. Place four sectors of egg around the base of the vegetables. Garnish with radish roses. This amount serves about 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	4	7	3	91

Savita Gelatine

3 grams vegetable gelatine	268 grams (9½ oz.) boil-
7 grams (1½ tps.) savita	ing water
extract	230 grams (8 oz.) cold
	water

Prepare the vegetable gelatine according to general directions, using 153 grams of boiling water for cooking the gelatine. In 115 grams of boiling water cook the savita extract for five minutes and with the cold water add to the gelatine. Turn into molds and set away to cool. This amount serves 4 orders. Grams for serving 85 (3 oz.). No food value.

Tomato Jelly

488 grams (17 oz.) tomato	4 grams vegetable gelatine
juice	230 grams (8 oz.) boiling
32 grams (1 oz.) lemon	water
juice	1 bay leaf
40 grams (1½ oz.) onion	3 grams (¾ tps.) salt

Cook the tomato with the bay leaf and onion 10 minutes. Soak the gelatine and wash thoroughly. Cook in boiling water until clear and add to the tomato juice, salt and lemon juice. Strain and mold into punch glasses. Serve on head lettuce with raw mayonnaise. This amount serves about 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	1	0	3	16
Mayonnaise 28 (1 oz.) ...	1	22	0	202

Raw Mayonnaise

17 grams egg yolks (1 yolk)	103 grams (3½ oz.) salad oil
22 grams (1½ tbs.) lemon	½ gram salt (¼ tps.)
juice	

Add the salt to the yolks and beat until thick and yellow. Add lemon juice, beat until well blended. Then add oil drop by drop beating constantly. When it com-

mences to thicken, increase the amount of oil until all is used up. The success of this dressing depends upon having the ingredients cold, and upon adding the oil slowly enough that it may be thoroughly emulsified before more is added. If it curdles, take another egg yolk beat it until thick and gradually add the curdled dressing to it in the same manner as the oil is added to the first egg yolk. When properly made, this is a thick dressing. If a more acid dressing is desired, more lemon juice may be added.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 28				
(1 oz.)	1	22	0	202

DESSERTS

Baked Custard

92 grams eggs (2 eggs) 228 grams (8 oz.) cream
228 grams (8 oz.) water 40%

Beat the eggs slightly; add the cream and water and mix. Turn mixture into custard cups, set in a pan of hot water and bake in a moderate oven until a silver knife is not coated upon testing the custard. This amount serves 4 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85				
(3 oz.)	3	16	1	160

Gluten Wafers

46 grams eggs (1 egg) 1 gram ($\frac{1}{4}$ tps.) soda
60 grams (2 oz.) butter 2 grams ($\frac{1}{2}$ tps.) cream
115 grams (4 oz.) 40% cream of tartar
260 grams (9 oz.) flour Salt (pinch)
(gluten)

Beat the egg, add the cream, melted butter, salt, soda, cream of tartar and flour. Mix well, roll out very thin, cut in small oblong shapes and bake until a light brown and crisp. Keep in a dry place.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 28				
(1 oz.)	7	6	7	110

Strawberry Ice

1 gram gelatine, cooked 10 min. in 191 (7 oz.) grams water
7 grams ($1\frac{1}{2}$ tps.) lemon juice
233 grams (8 oz.) unsweetened strawberry juice

To about 130 grams of the prepared gelatine water, add the lemon juice and the unsweetened strawberry juice. Freeze and pack. This amount serves 5 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	0	0	3	12

Blueberry Sherbet

- 260 grams (9 oz.) unsweetened blueberry juice
- 10 grams (2 tps.) lemon juice
- 230 grams (8 oz.) water
- 10 grams (2 tps.) orange juice
- 28 grams egg white (1 egg)

Use juice from canned blueberries, add water, lemon juice and orange juice. Freeze to a mush, add stiffly-beaten egg white. Freeze and serve. This amount serves 6 orders.

	Protein	Fats	Carbo- hydrate	Calories
Grams for serving 85 (3 oz.)	1	0	8	36

There is no other disease in which the management of the bill of fare is a matter of so great importance as in diabetes. In severe cases, the services of a person who has been especially trained is essential. In ordinary cases, success may be attained by carefully following the suggestions given in this booklet.

In arranging the bill of fare, one-third of a gram, or one and one-third calories of protein, should be provided for each pound of body weight; that is, a man five feet and six inches in height weighing 150 pounds would require 50 grams, or 200 calories of protein.

The amount of carbohydrate the patient should take will depend upon his carbohydrate tolerance and the amount of insulin he is taking. The carbohydrate tolerance is determined by an examination of the urine and the blood after a known amount of carbohydrate, that is starch or sugar,

has been taken. The balance of the ration should be made up of fat and roughage.

The menus given in the following pages are adapted to persons who have a fairly good carbohydrate tolerance, that is, who are able to utilize from 110-140 grams (440-560) of starch or sugar. The total carbohydrate of the day's ration and the weight of the patient to which the diet is adapted, is indicated for each day's ration.

GENERAL MENUS

			Calories			
	Grams	Ounces	Protein	Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Cream of Gluten Gruel..	170	6	40	558	48	646
Bran Gems	57	2	4	9	4	17
Butter	14	½	0	108	0	108
Total Calories			46	699	54	799
Total Grams			12	78	13	103

Dinner

Cream of Onion Soup....	200	7	8	288	24	320
Gluten Bran Bread	104	4	64	144	48	216
Butter	28	1	0	108	0	108
Baked Cabbage	170	6	24	180	32	236
Broiled Mushrooms	64	2½	8	54	16	78
Celery	114	4	4	2	14	20
Minute Brew	114	4	0	0	0	0
Cream	7	¼	1	12	1	14
Total Calories			109	788	95	992
Total Grams			27	88	24	139

Supper

Savita Broth	200	7	0	0	0	0
Stewed Tomatoes	170	6	8	4	28	40
Turnips, buttered	170	6	8	72	72	152
Bran Gems	114	4	8	18	8	34
Butter	14	½	0	108	0	108
Kaffir Tea	114	4	0	0	0	0
Cream	7	¼	1	12	1	14
Strawberry Ice	85	3	0	0	12	12
Total Calories			25	214	121	360
Total Grams			6	23	30	59

Grand Total Calories .. 180 1701 270 2151

Grand Total Grams 45 189 67 301

Total glucose, 110 grams (440 calories), a good maintenance ration for a patient weighing 135 pounds.

GENERAL MENUS

			Calories			
	Grams	Ounces	Protein	Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	7	$\frac{1}{4}$	1	12	1	14
Gluten Griddle Cakes ...	70	$2\frac{1}{2}$	36	27	32	95
Butter	42	$1\frac{1}{2}$	0	324	0	324
Celery	57	2	2	1	7	10
Total Calories			39	364	40	443
Total Grams			10	41	10	61

Dinner

Cream of Almond Soup ..	200	7	16	288	16		320
Parsnips (butter 1 tps.) ..	114	4	5	48	56		109
Spinach (butter 2 tps.) ..	170	6	16	54	24		94
Protose in Tomato	57	2	28	36	16		80
Gluten Bread	57	2	32	72	24		128
Butter	14	$\frac{1}{2}$	0	108	0		108
Total Calories			97	606	136		839
Total Grams			24	67	34		125

Supper

Cabbage Broth (2 tps. butter)	200	7	0	54	8		62
Gluten Bread	57	2	32	72	24		128
Butter	14	$\frac{1}{2}$	0	108	0		108
Creamed String Beans .	114	4	12	99	28		139
Tomato Omelet	70	$2\frac{1}{2}$	24	72	0		96
Olives	85	3	5	160	12		177
Blueberry Sherbet	114	4	5	0	43		48
Minute Brew or Kaffir Tea	114	4	0	0	0		0
Cream	7	$\frac{1}{4}$	1	12	1		14
Total Calories			79	577	116		718
Total Grams			20	64	29		113
Grand Total Calories ...			215	1547	292		2054
Grand Total Grams			54	172	73		299

Total carbohydrate, 120 grams (480 calories) for a person five feet, seven inches in height who weighs more than 162 pounds and needs to reduce.

GENERAL MENUS

		Calories				
	Grams	Ounces	Protein	Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Scotch Bran Brose	170	6	16	18	56	90
Cream	57	2	6	94	10	110
Sliced Tomatoes	85	3	3	3	13	19
Total Calories			27	139	81	247
Total Grams			7	15	20	42
Dinner						
Celery Broth	200	7	0	0	0	0
Browned Nuttolene	114	4	64	324	24	412
Stewed Onions	85	3	4	0	40	44
Cabbage Salad	114	4	8	180	32	220
Bran Gems	85	3	6	14	6	26
Butter	28	1	0	216	0	216
Pecans	28	1	11	180	17	208
Strawberry Ice	85	3	0	0	12	12
Total Calories			93	914	139	1146
Total Grams			23	102	35	160
Supper						
Diabetic Perfection Salad	100	3½	0	9	4	13
Cauliflower (2 tps. butter)	170	6	16	72	32	120
Gluten Bread	85	3	48	108	36	192
Butter	28	1	0	216	0	216
Baked Custard	114	4	16	192	5	213
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Total Calories			82	621	79	782
Total Grams			20	69	20	109
Grand Total Calories ...			202	1674	299	2175
Grand Total Grams			50	186	75	311

Total carbohydrate, 125 grams (500 calories) for a person weighing 150 pounds.

GENERAL MENUS

			Calories			
	Grams	Ounces	Protein	Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Gluten Griddle Cakes	140	5	72	54	64	190
Butter	28	1	0	216	0	216
Olives	85	3	5	160	12	177
Total Calories			79	450	78	611
Total Grams			20	50	20	90

Dinner						
Saniterrapin Soup	200	7	8	54	0	62
Spinach Loaf	85	3	28	18	12	59
Buttered Beets (2 tps. butter)	170	6	8	54	64	126
Lettuce	57	2	2	1	7	10
Gluten Bread	85	3	48	108	36	192
Butter	28	1	0	216	0	216
Total Calories			94	451	119	664
Total Grams			23	50	30	103

Supper						
Tomato Broth (2 tps. butter)	200	7	0	72	8	80
Mashed Turnips (1 tps. butter)	85	3	4	36	36	76
Celery and Cheese	114	4	28	207	16	251
Bran Gems	114	4	8	18	8	34
Butter	28	1	0	216	0	216
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Apples	140	5	3	7	80	90
Total Calories			45	580	150	775
Total Grams			11	64	37	112

Grand Total Calories ... 218 1485 347 2050
Grand Total Grams 54 164 87 305

Total carbohydrate, 135 grams (540 calories) adapted to a person five feet, seven inches in height who weighs 170 pounds or more and hence needs to reduce in weight.

GENERAL MENUS

			Calories			
	Grams	Ounces	Protein	Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Scotch Bran Brose	170	6	16	18	56	90
Cream	57	2	8	96	4	108
Gluten Biscuit	14	½	44	1	6	51
Butter	28	1	0	216	0	216
Total Calories			70	355	68	493
Total Grams			18	39	17	74
Dinner						
Cream of Almond Soup .	200	7	16	288	16	320
Scalloped Vegetable						
Oysters	85	3	28	108	20	156
Celery Relish	85	3	8	27	12	47
Green Peas	85	3	12	0	32	44
Bran Gems	85	3	12	27	12	51
Butter	42	1½	0	324	0	324
Buttermilk	150	6	20	7	32	59
Total Calories			96	781	124	1001
Total Grams			24	87	31	142
Supper						
Cabbage Broth (2 tps. butter)	200	7	0	72	8	80
Nuttolene in Tomato ...	14	4	26	108	24	158
Mashed Potatoes	85	3	8	63	52	123
Cucumber Jelly	85	3	0	0	8	8
Mayonnaise	28	1	4	198	0	202
Gluten Bran Bread	85	3	48	108	36	192
Butter	14	½	0	108	0	108
Strawberry Ice	85	3	0	0	12	12
Minute Brew	14	4	0	0	0	0
Cream	14	½	2	24	2	28
Total Calories			88	681	142	911
Total Grams			22	76	35	133
Grand Total Calories ...			254	1817	334	2405
Grand Total Grams			64	202	83	349

Total carbohydrate, 140 grams (560 calories) for a person six feet in height who weighs 200 pounds and more and needs to reduce.

GENERAL MENUS

	Grams	Ounces	Protein	Calories		
				Fats	Carbo- hydrates	Total
Breakfast						
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28
Cream of Gluten Gruel	170	6	40	558	48	646
Sour Orange Juice	142	5	0	0	76	76
Bran Gems	57	2	8	18	8	34
Butter	28	1	0	216	0	216

Total Calories	50	816	134	1000
Total Grams	12	90	33	135

Dinner

String Bean Broth	200	7	8	0	24	32
Asparagus Loaf	85	3	12	108	8	128
Stewed Tomatoes	85	3	4	0	12	16
Creamed Carrots	114	4	8	108	36	152
Cucumbers	57	2	2	1	7	10
Gluten Bran Bread	57	2	16	36	12	64
Butter	14	½	0	108	0	108

Total Calories	50	361	99	510
Total Grams	12	40	25	77

Supper

Tomato Broth (1 tps. butter)	100	3½	0	36	4	40
Celery and Cheese	114	4	28	207	16	251
Savita Gelatine	85	3	0	0	0	0
Mayonnaise	28	1	4	198	0	202
Gluten Bran Bread Sandwiches	42	1½	16	90	16	122
Gluten Wafers	28	1	28	54	28	108
Minute Brew or Kaffir Tea	114	4	0	0	0	0
Cream	14	½	2	24	2	28

Total Calories	78	573	66	717
Total Grams	20	64	17	101

Grand Total Calories ...	178	1750	299	2227
Grand Total Grams	44	194	75	313

Total carbohydrate, 120 grams (480 calories) for a man five feet, two inches in height.

Analysis of Pure Gluten Biscuit

Moisture	5.00 to 10.00
Protein	70.00 " 80.00
Starch	0.00 " 5.00
Other Carbo.	5.00 " 10.00
Fats	.25 " .70
Ash	1.00 " 2.00
Cel. & Undt.	2.40 " 3.00
Protein factor used	5.70

Analysis of Pure Gluten Meal

Moisture	5.00 to 10.00
Protein	70.00 " 80.00
Starch	0.00 " 5.00
Fats	0.25 " 1.00
Ash	1.00 " 3.00
Cel. & Undt.	0.00 " 3.00
Protein factor used	5.70

Analysis of 40% Gluten Biscuit

Moisture	5.00 to 10.00
Protein	40.00 " 45.00
Starch	40.00 " 45.00
Fats	.20 " .50
Ash	1.00 " 2.00
Other Carbo.	5.00 " 10.00
Cel. & Undt.	1.00 " 2.00
Protein factor used	5.70

Analysis of 40% Gluten Meal

Moisture	5.00 to 10.00
Protein	40.00 " 45.00
Starch	40.00 " 45.00
Fats	.20 " .50
Ash	1.00 " 2.00
Cel. & Undt.	1.00 " 2.00
Protein factor used	5.70

Analysis of 40% Gluten Flour

Moisture	5.00 to 10.00
Protein	40.00 " 45.00
Starch	40.00 " 45.00
Fats	.20 " .30
Ash	.50 " 1.00
Cel. & Undt.	1.00 " 3.00
Protein factor used	5.70

Analysis of Savita

Moisture	21.6
Protein	21.2
Fat	.4
Carbo.	6.0
Ash	45.8
Undt.	5.0
Food iron, per ounce, 2.0 grains	.46
Food lime, per ounce, 1.2 grains	.28

Analysis of Protose

Moisture	55.2
Protein	22.5
Fat	9.6
Carbo.	8.9
Ash	1.5
Undt.	2.3
Protein factor used	6.25

Analysis of Nuttolene

Moisture	51.6
Protein	14.5
Fat	28.2
Carbo.	6.1
Ash	2.3
Protein factor used	6.25

Analysis of Soy Biscuit

Protein	53.8
Fat	9.2
Starch	1.3
Ash	4.6
Pentosans, etc.	20.0
Water	5.5
Undetermined	5.6
Protein factor used	5.70

Diabetic Bran

Contains less than 5% Starch.

DIABETIC BRAN

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(Psyllium Seed)

This is a new product but without doubt the most effective of all non-drug laxatives. When immersed in water the small brown seeds give off a soft, smooth, jelly-like substance which supplies needed bulk and also serves the purpose of a lubricant. Produces bulky, well-formed stools. Just the thing for a lazy colon. Safe for the diabetic. Excellent in colitis.

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